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ABSTRACT

This newsletter on development projects in developing nations include the following major articles: (1) "An Insider's Perspective: Dr. Henry Cassirer Talks to DCR about Development Communication and Unesco"; (2) "Comic Books Carry Health Messages to Rural Children in Honduras," by Oscar Vigano; (3) "Computers Come to the Aid of Planners: New Software Package Available," by Judy Brace; (4) "Radio Improving Status of Women in Nepal," by Kathleen Goodman and Mana Wagley; (5) "Social Marketing Strategies for Diarrheal Disease Control Programs--PAHO 'Communications for Health' Workshop," by Ann Jimerson and Michael McQuestion; (6) "South Pacific Islanders Use Satellites in Nutrition Communication," by Gloria Renda and Brian Riordan; (7) "Breaking the Cycle," by Jacques Dupont; (8) "The 'Dirty Power' Problems" (about unstable electrical power) by Gary Garriott; (9) "Using Audiocassettes in Distance Education," by Jo Bradley; and (10) "Foreign Television by Satellite Enhances Language Studies in U.S.A.," by Victor Aulestia. Reviews of recent publications and of ERIC documents, as well as development-related conference announcements are included. (LMM)

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AN INSIDER'S PERSPECTIVE:

Dr. Henry Cassirer Talks to DCR About Development Communication and Unesco

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An Insider's Perspective:

Dr. Henry Cassirer Talks to *DCR* about Development Communication and Unesco

In a long and distinguished career, Dr. Henry R. Cassirer has worked closely with Unesco. He has been a U.S. broadcaster, a freelance documentary film producer, a media consultant, an advisor on educational radio and TV for scores of countries around the world, a teacher, and director of educational media for Unesco. This interview, conducted both in person and by mail, reflects the perceptions and experience of a man who has been involved with development communication for many years.

DCR: In light of the fact that most of Unesco's recent energies and efforts in the area of communication seem to have been focused on issues of information flow and the New World Information Order, do you see the possibility of the organization's returning to, or developing a real concern for, the area of *our* interest, development communication?

HC: Let's begin by trying to clear up some misunderstandings. Most of the noise about Unesco's concern with communications turns indeed around the issues of information flow and the New World Information Order. But a closer look at Unesco's activities and budgetary commitments indicates that the core of its work is devoted to the "development of communication." It is this operational sector which, according to the Director General, "accounts for over 77 percent of the funds devoted to communication . . ."

DCR: How do you distinguish between "development communication" and "the development of communication?"

HC: They are, as you know, quite different. To get a clearer picture, we will have to go back a little. Unesco has always been involved in four different aspects of communication: 1) the free flow of communication between all countries; 2) the development of communication media; 3) the use of communication for education, science, and culture; 4) the dissemination of public information about Unesco.

These four areas were given varying emphasis and resources in response to changing conditions. But, though they influence each other, the four are in fact distinct and should be understood as such to avoid harmful misunderstandings.

DCR: Why are we hearing so much about the first two points today, the free flow issue and development of the media?

HC: Developing countries have become increasingly aware of, and impatient with, being largely on the receiving end of international communication. They have also found it politically convenient to protest against "western domination" rather than to look with equal criticism at the domination of their own people by media controlled by government or wealthy elites. Imbalance of communication is indeed a major social injustice, but, in my opinion, authoritarian governments who deny freedom of expression to their own people are ill-placed to carry the flag of free flow of communication. Western countries, on the other hand, by focusing on Unesco's role in international communication in the name of defending freedom of information and the independence of journalists, divert attention from the sociopolitical impact of their own communication practices and neglect the potential uses to which the media could be put in the interest of development.

DCR: Does Unesco's focus on public statements about international disequilibrium reflect a policy change within the organization?

HC: It does, at least in part. In previous years, the then Director of Mass Communication, Tor Gjesdal, supported by Director General René Maheu, stressed that Unesco was only dealing with the "technical" issues of communication, while political issues were a matter for the United Nations to deal with. But the present Director General, Amadou-Mahtar M'Bow, has a different approach. He considers Unesco to be *the* UN agency to deal with all but the technological aspects of communication for which the ITU is responsible. This has evidently accentuated the political issues.

DCR: What sort of projects is Unesco currently emphasizing in its communication program?

HC: According to an October 1982 statement by the Director General, the key objective of the Major Project *Communication in the Service of Man* is "to help bring about a more equitable situation regarding communication and the media." He adds that, "with this end in view, a substantial program for infrastructure development and training of manpower has been defined with the aim of gradually attenuating the inequalities existing at present."

DCR: Could we return to the question of the confusion between development of communication and development communication?

HC: Yes—this issue is a further cause for misunderstanding. Development of communication resources—both technical and

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human (through training)—is a prerequisite for the application of media to development needs. Nor can contribution to socioeconomic development ever be considered the sole concern of the media. Information and entertainment remain primary preoccupations of national authorities, the media, and the public at large. But there are pitfalls in a purely technological approach.

DCR: What pitfalls or dangers do you see in too much reliance on technology?

HC: The introduction of sophisticated technology and the imitation of western media practices may well be counterproductive to development and lead to increased dependence on imports (both of hardware and software). Television and satellites can present such risks. Their high cost and complicated production techniques favor trends toward centralization and the importation of equipment and slick programs whose entertainment appeal is greater than that of programs most developing countries are able to produce. If communication is to contribute to socioeconomic development, an "appropriate technology" must be selected for the media.

DCR: Could you explain in more detail what you mean by "appropriate technology" in this case?

HC: For example, satellites may be geared primarily toward the distribution of TV signals, in which case they tend to reinforce trends of dependence and centralization. But they may also fulfill a vital need for grassroots communication by introducing widespread access to narrow-band telecommunications, to telephone, telex, digital information, and to radio. Officials at Unesco are quite aware of these alternatives. The risk exists, however, that international technological assistance may promote the interests of foreign manufacturers and local elites rather than promoting self-determination and democratic participation.

To go back, though, it would be wrong to say, as your earlier question seemed to imply, that Unesco is not at all involved in development communication as such. In fact, some of the objections to Unesco, particularly in the United States, seem to arise from Unesco's concern for the application of the media to development needs. At Unesco's last Executive Board session, the US Delegate, Mrs. Gerard, said that there was some criticism in the U.S. of the notion that the media should be 'used' for specific purposes, since this was an opening wedge for the 'use' of journalists by government authorities. Director General M'Bow responded that the media "certainly have a 'role' to play in spreading culture and in contributing to the advancement of knowledge. This by no means implies that in order to play this role they must be subject to a public authority or to particular interests of large-scale private enterprises or to transnational corporations, of which mention was made in several speeches."

Service to critical social tasks is expected of all social institutions, from the judiciary to the education system, from the military to municipal authorities. Even industrial enterprises are expected to perform socially useful functions. Are only the media exempt, in the name of free enterprise and freedom of expression?

The American tradition of investigative journalism has long made it evident that public service, far from impinging on journalistic honesty, can only flourish in a climate of freedom of expression. A genuinely democratic journalist not only reports the views of authorities and expounds his or her own appreciation of the current scene, but acts as a genuine 'mediator' who gives voice to those who are condemned to silence. He or she bends an ear to the grassroots, relays to the rest of society the needs, views, and aspirations of minorities whose challenges are an impetus for change and 'development.' Expectation that the media render public service, far from restricting journalistic freedom, makes its protection a prerequisite. When there is resistance to public service and frank dialogue with the public through the media, society is ill prepared for 'development communication.'

What, may I ask in turn, is your own comment on the issue of whether it is an infringement on journalistic freedom and media autonomy to expect journalists to render services to society?

DCR: I think I would have to answer that in our tradition, finding and reporting the truth is in itself considered to be a service to society. The motto "You shall know the truth and the truth shall make you free" is one that is dearly held in this country. So producing social change and service to society are often seen as important byproducts of journalism, but I do not think they are the primary objective of most journalists.

HC: Personally, I doubt whether you can effectively promote development communication unless the media and at least some of their professionals are *expected* to devote *part* of their efforts to meeting the challenges of socioeconomic conditions.

DCR: Turning back to an earlier question, Dr. Cassirer, could you cite some of Unesco's involvement in projects specifically concerned with development communication?

HC: A look at the record shows that Unesco applies itself to development communication in both its training programs and operational projects. The Asia-Pacific Institute for Broadcasting Development, for instance, which was set up with Unesco aid in Kuala Lumpur and continues to receive its assistance, includes in its training such topics as population and development communication (radio); environment development; educational media for literacy; communication for the advancement of women; broadcasting in the service of culture; regional workshops on community media with special reference to local radio; distance learning through radio; and TV programs for young children. It might be of interest to readers of *DCR* to learn more about these and other training courses and workshops offered by the AIBD. (Note: *The address of the Asia-Pacific Institute for Broadcasting Development is P.O. Box 1137, Pantai, Kuala Lumpur, Malaysia.)*

DCR: Yes, we at the Clearinghouse are well acquainted with the excellent work done by the AIBD. Both their director, Dr. Balakrishnan and Ms. Eileen Wahab of their program staff have visited the Clearinghouse.

Turning to another communication interest of Unesco, would you say something about rural newspapers?

HC: Newspapers are usually an urban phenomenon since literacy, population density, and relative effluence provide ready markets in the cities for publishers and advertisers. To counterbalance this trend, Unesco emphasizes the establishment of the rural press in African and Latin American countries. Objectives for developing the rural press were listed in the 1971–72 Unesco program and budget, and included such things as providing reading material to new literates in rural areas in their own language, facilitating dialogue between authorities and rural people, decentralizing information, and informing readers about local events as well as about events in the world at large. These objectives fit well into those of development communication and have since guided Unesco in the establishment of rural newspapers in a dozen African countries.

DCR: There is also an emphasis on local radio, if I am not mistaken.

HC: Local radio is an area where Unesco has been very active. In Sri Lanka, for instance, the Broadcasting Corporation is establishing the Mahaweli Community Radio with the support of Unesco, which in turn uses funds-in-trust and an expert provided by Denmark. Serving a colonization scheme in a newly irrigated area, the Mahaweli Community Radio aims "to motivate the listeners to change their pattern of work and life in order to improve their socioeconomic situation." Programs are produced by mobile open-air studios in the villages, in consultation with the peasants. When problems are raised which require discussion with government officials, "the officer concerned will be brought to the village so that the recording is done when the explanation or advice is given directly to the villagers . . . All editing and mixing of the programs take place in the vil-

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Comic Books Carry Health Messages to Rural Children in Honduras

by Oscar Viganó

Innovation is using something old in a different way.
Dewey

A new project in rural western Honduras is using children as message-carriers to teach villagers important health lessons about clean water and sanitation. Working with a specially created comic book, the children learn the health concepts in school and then share them with their families. This Honduran Water and Sanitation Project represents a cooperative effort on the part of two institutions which usually work independently: the Water and Sanitation Department of the Ministry of Health, and the National Autonomous Water and Sewer System. The Project is the first in Honduras to have a specific health education component written into the project design from the beginning.

Organizationally, the Ministry of Education is directly responsible for the health education component, and for the construction of wells, latrines, and windmill systems, while the National Autonomous Water and Sewer System is responsible for the construction of aqueducts and sewer systems. The Project will benefit 100,000 people living in small rural communities of up to 50 families each. Most of the communities in the Project area have nearby schools and health units where children can easily be reached.

The objective of the health education component of the Project is to change attitudes and behavior of community members with regard to water consumption and use, and maintenance of latrines, wells, and aqueducts. Investigators found, during the survey conducted to help design the Health Education Implementation Plan, that in Honduras, as in most rural areas, children play an important role in providing and handling drinking water, as well as in caring for younger members of the family. The children are, in turn, most affected by health problems related to water and sanitation.

When Project designers considered how best to reach the children with the health education messages in coordination with Project activities and objectives, rural primary schools surfaced as one of the most important channels of communication. However, to tap the children's potential, it was necessary to design a system simple enough to be used in the schools without much training, economical to produce, effective and attractive to children, and above all, in line with the Project's philosophy that dialogue and participation are an essential part of health education. Any materials used should contain basic information about the subject, ideas and exercises to conduct in a classroom situation, and information for children designed to en ourage classroom participation.

Analyzing the different possible combinations of materials, the team came up with the idea of using a teaching module consisting of a class manual for the teacher with information about the learning objectives, water-related health problems, industrial and in-home techniques to purify drinking water, exercises for each particular class, evaluation, suggestions, *and* an accompanying comic book for each child.

Comic books were selected because their format has many advantages. Comic books are obviously entertaining, are fairly easy to produce, can relay information visually and step-by-step, combining action and a written technical vocabulary, and can be consulted again and again. In addition, children can take comic books home and pass them on to members of their family or to other children, multiplying the educational message.

It is interesting to note that despite all their advantages, comic books are seldom, if ever, applied in education for development as an integrated aid to classes. Efforts to use them have been mostly informational, such as pamphlets given away for people to read without any follow-up content discussion.

The main concern in developing the comic book centered on the style of illustration to be used. The designers chose a humorous style, something children relate to ve y well. Suggestions for characters were narrowed down to two children, a girl and a boy who would discuss health and sanitation matters. Then the problem became how these children knew or learned about the subject, and which one would be the expert. Finally an "expert" was born; nobody knows more about water than water itself, therefore a talking Drop of Water became the second character, and the comic books were called "Juanita y la Gotita" (Little Jane and the Drop of Water).

Content Description

The subjects of the comic books follow the Project objectives and are related to health education in water and sanitation. Each comic book contains single-concept messages; such topics, for example, as one cause of water contamination, or one way to purify water. Special care was taken to ensure that the illustrated sequences were not confusing and would be easily understood by children.

In the scripts the story develops sequentially, the events follow one another in the present time, without showing past or future actions. The script writers drew technical information for the different subjects from books and validated the data through area experts working with the Project or the Ministry of Health.

In order to correct any content or language errors, once technical changes are made, a rough copy is illustrated, photocopied, and distributed among area experts and personnel familiar with the subject and with rural audiences. It should be noted that the comic book has been designed for the formal schools, so although very simplified, the language used does not contain any slang.

Subject and Learning Objectives

The first comic book (see illustration)

(continued on next page)

¿COMO ES POSIBLE QUE PUEDAS ENFERMAR A ALGUIEN?
ES QUE AHORA TENGO DENTRO DE MI MUCHAS COSAS QUE ENFERMAN
BUENO... ¿ME HARIAS UN FAVOR PARA AYUDAR A TODOS LOS QUE ME BEBAN?
¡SI!... ¡SI!...
...Y CUANDO LAS PERSONAS ME BEBAN ESTAS COSAS ENTRARÁN CONMIGO Y LAS ENFERMARÁN
PON EL BALDE SOBRE EL FUEGO Y HIERVEME POR QUINCE MINUTOS...
¡PERO!... ¡TE QUEMARÁS!

In this sequence, greatly reduced here, the Water Drop is explaining to Juanita that, before he is boiled, he can make people sick when they drink him. But if she will boil him for 15 minutes... The comic books have an average of 8 pages, and contain a glossary to define new words and a questionnaire for the children to complete.

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dramatized the causes of water contamination and how to decontaminate water by boiling it. Learning objectives were: 1. identify in writing one cause of water contamination, 2. identify in writing one way to decontaminate drinking water within the reach of the rural family, 3. describe in writing what bacteria is and describe its effect on drinking water, and 4. describe in writing the dangers of drinking contaminated water.

Pretest Results

Once the design of the first module was completed, drafts of the teaching guide and photocopies of the comic book were pretested in three rural schools with three teachers and 54 third to sixth grade children. During the pretest of the comic book, each child was given a questionnaire with five questions related to the content of the health education class to be answered before they saw the comic book. Afterwards, children took the comic book home to read; the following day the teacher conducted a health education class using the teaching guide content and asking questions related to the comic book story, expanding each answer with information taken from the guide. Once the class was over, questionnaires with eleven questions (five from the earlier questionnaire, plus six about comic book content) were given to children.

Correct answers for the first five questions went up from 59 percent to 80 percent. During the test, the correct answers about boiling water to purify it rose as much as 90 percent. Ninety-five percent of the children indicated that they liked the characters, and teachers expressed their satisfaction with the materials and welcomed the opportunity to use them.

Production plans include 12 modules containing educational materials about such topics as the prevention of water-related sickness, and personal hygiene. Five thousand copies of the first comic book have been printed, and the Project expects to reach 100 rural community schools, distributing an average of 40 copies per school. To date, 1,200 copies have been distributed among school children in 30 rural schools, and teachers are sending back information which will be used in the design of future modules.

The relatively low production cost, US $0.30 per copy, the comic books' acceptance by teachers and school children, their potential for carrying sequential visual and written communication, and their effectiveness in relaying the educational message all make the comic book a perfect medium to introduce health education in the rural schools. ■

Oscar Viganó, the comic book's artist, is the Field Project Director of the Joint Ministry of Health and SANA Water and Sanitation Project being funded by USAID/Honduras under a contract to the Academy for Educational Development.

For further information, contact Oscar Viganó, Field Director, AED/PRASAR, A.P. 140, Tegucigalpa, D.C., Honduras.

Computers Come to the Aid of Planners:
New Software Package Available

by Judy Brace

Ministries of physical planning and other government institutions involved in urban and regional development should be heartened to learn of a new planning tool available to them through the United Nations Center for Human Settlements (UNCHS): a microcomputer software program. Stating that this is appropriate technology at its most accessible, the program's project manager, Jerry Coiner, has taken special pains to see that the costs of using the program are kept to a minimum, that workshop training is available to those who will use the program and whose needs it will meet, and that back-up consultancy is provided as needed for up to six months after the program is introduced.

Package Designed for Many Needs

The Urban Data Management Software (UDMS) package has been designed by UNCHS to meet the needs for data storage, analysis, display, and mapping for physical, social, health, environmental and land-use planners, housing officials, resource managers, and regional scientists. The package is written in CBASIC for any C/PM disc operating system which allows it to be used on almost any microcomputer on the market.

Because costs for microcomputers are steadily falling while their capabilities are increasing (due to technological advances), Dr. Coiner recommends a minimum investment in hardware. His suggested requirements for a 48 kilobyte microcomputer, at least 500 kilobytes of disc storage, two disc drives, a video terminal and a standard line printer, can be met in the U.S. for US$8,000. The copyrighted software package and necessary manuals are available free of charge to governmental organizations. Should a government require technical assistance to put the program in place, install the software and train personnel, the total cost, including hardware, will vary between US$40,000 and $80,000, depending on local conditions.

Dr. Coiner has received requests to date from over 30 countries interested in using this tool for physical planning. The National University of Colombia's Habitat Center and Sri Lanka's Urban Development Authority are two institutions that have successfully introduced this program. Jamaica's Urban Development Authority is about to institute the system.

International Requests

It is essential that an institution's need determine the kind of hardware and software it acquires, with the appropriateness of the software being absolutely crucial. By using this high technology at the small-scale operational level to process its own data in a useful way, the institution will avoid the common pitfall of having too much data with too few uses, while at the same time becoming comfortable with the technology.

A number of publications are available to accompany the program. One manual in particular, however, can stand alone as an excellent guide to the concepts of data management. Designed for human settlements planning and management agencies, these concepts are nonetheless relevant to others interested in a clear understanding of data processing technology. Each chapter of *Data Management for Urban and Regional Development* deals with a specific set of actions that must be taken to determine the utility of data management concepts and to select the appropriate technology for specific tasks. These chapters are grouped into "Basic considerations," "Assembling an information system" and "Technical and personnel aspects of information systems." A glossary, a bibliography, and a list of acronyms are included. The cost of this publication (number CHS/PP/81-1/S) is US$10.00. ■

Judy Brace is Resource Center Manager and Acting Director of the Clearinghouse.

For further information on this Urban Data Management Program, or to order the above publication, contact Dr. Jerry Coiner, UNCHS (Habitat), P.O. Box 30030, Nairobi, Kenya.

Seeking Songs for Health

Dear Colleague,

In a number of countries popular songs, appropriately re-worded, are used to encourage good health practices. If you know of any such songs we would be very grateful if you would send us details. We would like to have the translation of songs which are not in English and we would be grateful for the words of the original song if it is one which we are not likely to know. In such a case it would be helpful if you could also send us the music or at least the vocal part, if this is possible. Of course the words and music on a tape would be best of all, but we realise this may not be possible.

Your help with this would be much appreciated.

Yours sincerely,
David Morley and Duncan Guthrie

Child-to-Child Programme, c/o Institute of Child Health, 30 Guilford Street, London WC1N 1EH, United Kingdom.

International Conference on Oral Rehydration Therapy (ICORT)

A major International Conference on Oral Rehydration Therapy (ICORT) is being planned to take place at the Shoreham Hotel in Washington, D.C., from June 7 to 10, 1983. ICORT will be sponsored by the Agency for International Development (AID) with the cooperation of the International Center for Diarrhoeal Disease Research/Bangladesh (ICDDR/B), UNICEF, and the World Health Organization's Diarrheal Disease Control Program (WHO/CDD).

The purpose of the Conference is to increase professional and lay awareness of the value of oral rehydration therapy (ORT) in the control of diarrheal diseases, the major cause of infant morbidity and mortality in the developing world.

World experts in oral rehydration therapy from both the developed and developing world are being invited to participate. A Technical Advisory Committee made up of representatives of the organizations involved and outside consultants has developed the agenda and both plenary and panel sessions will be held over the three-and-a-half day conference. The agenda is designed to openly discuss oral rehydration therapy, its justification, practical utilization, program experiences, and issues related to implementation of ORT programs. A session will also be devoted to Future Directions including Directions for Future Research.

The ICORT conference will be an open meeting but registration will be required. For further information, contact Mary Beth Allen, ICORT Conference Staff, Room 3534, NS, Agency for International Development, Washington, DC 20523, USA. Telephone 202-632-0226. ■

Leadership for Development

The National Training Laboratories (NTL) Institute is currently receiving applications for its international program *Leadership for Development* to be held in Bethel, Maine, USA, August 8-21, 1983.

The *Leadership for Development* program is intended for men and women currently in leadership positions who are responsible for designing and implementing development programs at the community level in Third World countries.

The course will be conducted in English and the cost is US$1500 (excluding travel and per diem). Senior staff will be Dick and Marion Vittitow. Application forms may be obtained from: Ms. Virginia Sprecher, NTL International Programs, P.O. Box 9155, Rosslyn Station, Arlington, Virginia, 22209 USA. For further information contact Dick Vittitow, 90 Tamalpais Avenue, Mill Valley, CA 94941, USA. ■

Radio Improving Status of Women in Nepal

by Kathleen Goodman and Mana Wagley

An innovative project in Nepal is using a wide variety of instructional radio programs for upgrading the skills of primary school teachers. While the project was not designed specifically to promote improvements in the status of women in Nepal, a review of data on literacy rates and school enrollment in Nepal clearly indicates that improving women's participation in formal and nonformal educational activities should be included as a part of the overall objectives of any educational project in that country. Consequently, the project is using radio broadcasts to encourage girls to attend school more regularly, and to stay in school beyond the third grade, and is generally presenting strong and positive female role models to women throughout Nepal.

The Radio Education Teacher Training Project (RETT) is sponsored by the United States Agency for International Development (USAID) and implemented by Southern Illinois University (SIU) and His Majesty's Government (HMG) of Nepal's Ministry of Education and Culture (MOEC), the Institute of Education (IOE), and Radio Nepal. The RETT Project attempts to upgrade the teaching skills of untrained primary school teachers who have not completed their own secondary school training. Instruction is provided over the radio with the support of written materials to primary teachers working in even the most remote areas of this mountainous kingdom.

Women are under-represented throughout the entire educational system in Nepal. An AID-sponsored study on the status of women in Nepal (1981) reports that lack of literacy and education are important constraints to women's active participation in economic growth, and they limit access to the development activities of their kingdom. The 1977 census in Nepal reported literacy rates of around 5.2 percent among women. Nepal's Ministry of Education and Culture (MOEC) data indicate that only approximately 28 percent of students enrolled in primary school are girls. Girls generally are needed at home to look after younger siblings, tend animals, and help with household chores like gathering wood and carrying water. In general, educating daughters is considered to be less important than educating sons.

Need to Encourage Girls in School

Although these attitudes are changing, special efforts are still needed to encourage parents to send their daughters to school and to allow them to attend regularly. Even when girls are enrolled in school, their attendance is often sporadic and they frequently bring their younger siblings with them. This situation makes it difficult for teachers to organize their instruction and for girls to perform well in classroom activities. In many parts of the country, girls are found clustered in the back of the classroom with their younger siblings, shyly watching the teacher or leafing through their textbooks with little or no involvement in the classroom instruction. It is therefore not surprising that still more girls drop out of school after third grade, with the percentage of girls in fourth grade around 21 percent (1980).

Unfortunately, the lack of educated women may also contribute to the low representation of women in the teaching profession. Of the estimated 6,004 untrained, nonmatriculated teachers targeted by the RETT Project, only 361 are women—approximately 4 percent.

Increasing the participation of women at all levels of education has been integrated into RETT Project goals. To achieve this objective, RETT's team of Nepali writers and producers has developed four basic strategies:

Radio Training for Women Primary School Teachers

RETT has been able to directly attack the low representation of women in teaching positions in two ways. All untrained, nonmatriculated women who are currently teaching will be included in the RETT training program and, thus, will have the opportunity to become trained teachers and receive a salary increase for successfully completing training. This will have the effect of making their positions more secure as well as increasing their salaries. Consequently, RETT will help women currently teaching to remain within the educational system. Second, since RETT training is now readily available to all untrained, non-matriculated teachers and approximately 3,000 new teachers must be provided each year to keep up with increased student enrollment, School Management Committees may also be more willing to hire untrained women to teach in their primary schools, thus providing new employment opportunities for women.

Characterization of Women in RETT Broadcast and Written Materials.

The strongest impact of RETT on women's status in education may come about through the comprehensive integration of women's programming into the instructional materials. Radio is a powerful medium and listeners are influenced in many ways by the things that they hear. During RETT broadcasts, voices portray various types of vil-

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(**Nepal** continued from previous page)

lagers, teachers, and teacher educators. If the characters were all men, RETT programming would act to perpetuate the stereotype that educators are generally men. Moreover, if characters played by women actors were ineffective or incompetent in some ways, the RETT programming might establish an image that female educators are not as good as male educators. Consequently, RETT programming has been carefully designed to ensure that there are a significant number of women characters and that they are always portrayed in a strong positive way.

In RETT programming, roles played by women include one teacher, two teacher educators, and one health educator. These are among the more prestigious roles in the scripts and certainly occur more frequently in RETT radio scripts than the actual representation of women at comparable levels in the educational system in Nepal. In addition, when classroom situations are depicted, 50 percent of the children's voices are girls—well above current classroom averages. Hearing women acting in the role of teachers and teacher educators provides the opportunity to RETT women teachers and other women listeners to imagine themselves working in these situations and to establish career objectives compatible with these higher level aspirations.

Special Programming for Women

Because teachers enrolled in the RETT Project listen to the instructional broadcasts in their homes, the broadcast is generally available to all individuals within hearing range and is not limited to enrolled teachers. The broadcast is timed to occur when most women have completed their work in the fields so the wives and families of enrolled teachers can benefit from the non-formal portion of the broadcast or magazine program. With this in mind, programming has also been developed to ensure that areas of special interest to women are included in the magazine portion of the radio broadcast. Efforts have also been made to include interviews with, and information on, important women in Nepal who could serve as positive role models for women listeners.

Another example of this type of programming is a "soap opera" on women's legal rights under HMG's legal system. A third example includes special materials on "women in development" programs and activities in Nepal, and how listeners may gain access to them. A total of 24 such magazine segments have been developed specifically for women.

It is important to note, however, that most program segments are of general interest to men *and* women. Topics include agricultural methods, improved resource conservation practices, health, and nutrition. While these segments are not specifically developed for women listeners, they refer to activities frequently performed by women. Ideally, women who listen to the programs will also directly benefit from ideas contained in these sequences.

> ***"Wherever possible, special programming for women has been incorporated into the regular curriculum."***

Programming to Increase Female Student Participation

RETT has also tried to address the problem of the low enrollment of girls in primary schools through the training provided to primary school teachers. If primary school teachers can become more skilled in recruiting girls for school and in improving girls' performance in the classroom, then one could expect to see a related increase in the number of girls who complete their education. RETT writers carefully reviewed the teacher training curriculum to find ways to improve primary school teachers' skills in recruiting and working with their female students. Wherever possible, special programming for women has been incorporated into the regular curriculum. Lessons have included:

- one unit in Education on classroom management techniques which features special ideas to encourage girls to participate more actively in classroom activities;
- one unit in Social Studies on Community Services which suggests using roleplaying as a method to teach children about the different government positions in their villages. Teachers are specifically instructed to make sure that all children in the classroom roleplay each type of job; and
- some units in Social Studies which describe the role of great women, like Bhrikuti, in Nepal.

Increased Participation by Women as Staff Members in RETT

Since RETT writers and professional staff doubled as actors for the radio broadcasts, it has been imperative that women be well represented on the Project staff. This situation has given additional impetus to the already-strong commitment to integrating women in all levels of RETT Project development and implementation. Although overall staffing has varied considerably during the Project, for the majority of the production phase, 32 percent of the professional staff working in the Project were women. Although these figures do not begin to approach equal representation, they are well above current levels of representation by women in the educational system in Nepal. Achieving this level of participation by women required considerable effort by all involved with the Project. The following are examples of the kind of activities and accommodations used to increase the participation by women in RETT.

1. Flexibility was maintained in program scheduling to allow female HMG staff to continue working on the Project materials and participate in training opportunities and still take maternity leave and spend time with their small babies.

2. RETT Production Staff worked many hours with individual staff women to try to improve voice and pronunciation so that they could participate in the actual broadcasting of Project materials. Since RETT has a large number of male staff members, if a male staff voice was not radio quality or if teachers complained about not being able to understand the voice, then this person's voice was not used again. However, since RETT has a limited number of female staff members, efforts were made to incorporate as many as possible into the radio broadcast. This included trying to use the voice of women typists, administrative assistants, and cleaning persons.

3. *All* eligible women staff members received short-term training out of Nepal (either in the USA or at the AIBD in Malaysia) in addition to that provided in-country.

RETT broadcasts cover the entire Kingdom of Nepal, even the most remote, isolated villages. It is hoped that the use of educational radio will enable women who cannot easily access other methods of communication to gain skills and information. ■

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Readers are invited to submit typed manuscripts of no more than 1000 words, and to send in photographs.

Social Marketing Strategies for Diarrheal Disease Control Programs

PAHO "Communications for Health" Workshop

by Ann Jimerson and Michael McQuestion

Primary health care, with its focus on the "client," has much in common with a seemingly distant discipline: marketing. Health planners are finding increasing relevance in the techniques developed by marketers for analyzing the needs of the target market; designing appropriate services and products; and utilizing effective pricing, distribution, and communication to inform, motivate, and service that market. Marketing strategies are tailored to the consumer, and, while they can vary widely in scope and application, all aim to put the client at the center of planning efforts.

How to apply social marketing to one aspect of primary health care, the control of diarrheal diseases (CDD), comprised the focus of a recent workshop sponsored by the CDD Program within the Pan American Health Organization (PAHO). The two-week workshop, which took place in December 1982, brought together twenty-one health professionals and educators from ten Latin American countries at the Latin American Center for Educational Technology in Health (NUTES/CLATES) in Rio de Janeiro, Brazil.

Need for Effective Planning

The idea for the workshop, designed to inaugurate a yearlong project in each of the ten participating countries, grew from concerns over the quality of communications/educational materials which were being produced to support CDD activities. In countries where posters, pamphlets, or radio spots had been developed, the materials were too often produced with little or no interaction with the people for whom the information was intended. Requests from some countries for assistance in designing effective communications campaigns confirmed the need for a meeting on the topic. Representatives from countries with active CDD Programs, including several with full-scale information campaigns on diarrheal diseases already underway, were invited to attend.

PAHO and NUTES/CLATES collaborated to design an active workshop which would be a model of the participatory style being promoted. Roleplay, games, discussions, small work groups, readings, and case studies were used to involve all of the participants and to introduce various methodologies to analyze, design, test, produce, and evaluate communications materials.

To better understand the communities making up their target audiences, the participants were introduced to the "focus group" technique of structured discussion groups. They then discussed the selection of appropriate media and tone for reaching that group. Pretesting methodologies were presented for trying out concepts and prototype materials, to lessen the chances of investing time and money in possibly misdirected attempts. Formative evaluation was discussed as an often-overlooked means of continuing the fine tuning of a campaign once it is underway.

A simple circular flowchart, incorporating the main steps in the social marketing strategy, provided the conceptual framework for the workshop. The chart helped to remind the participants that materials design is not an isolated activity which can be successfully carried out without venturing beyond the four walls of an office. The marketing methodologies which were introduced all fit into this broad scheme, each step of which puts health workers in touch with the needs, attitudes, vocabulary, and perceptions of the target audience. As health educators, the participants quickly recognized the stages in the flowchart as the familiar steps of planning, testing, and feedback which are basic to any good health education program.

Technical Design Stressed

Four small groups worked with the NUTES/CLATES production technicians to create model materials carrying messages related to national diarrheal control programs. The "hands-on" production of a radio spot, a poster, community participation materials, and a short slide tape, served to reinforce the marketing approach step by step and provided the doctors and educators with an inside glimpse of the technical end of communications work.

The workshop was unusual for its built-in follow-up component. Before leaving the course, participants from each country drew up a plan of action for applying the marketing strategies to existing or to new projects back home. The PAHO Washington office will act as a clearinghouse for reports from participants, sharing information on the projects among the countries throughout the upcoming year. The participants will meet again at the end of the year to critique the materials that have been produced and to exchange further ideas and experiences among themselves.

Participants were requested to bring samples of educational materials already being produced by their national CDD Programs. Their spontaneous discussions as they taped posters and booklets to the classroom walls early in the first week underlined the participants' eagerness to know what is being done in other countries. PAHO plans to sponsor visits among participating countries during the coming year, as part of the follow-up component, since the participants themselves are perhaps best qualified to offer one another support in the development of their communications projects.

Future Workshops Planned

The CDD Program plans to replicate the workshop for the English-speaking Caribbean later this year, with several changes in the course format. The participants in the pilot course agreed that field practice would greatly enhance the classroom discussions and roleplay. Work in villages near the workshop site will thus be included as a means of reinforcing the concepts and providing the participants with actual opportunities to conduct focus groups, pretests, and formative evaluations.

Participants Help Design New Workshop

In evaluating the workshop, the participants generally expressed the need for deeper theoretical background in communications methodologies, and suggested emphasis on the production of model materials. Cutting down on production time would allow a shorter workshop (two weeks seemed too long for some of the participants) even with the addition of field trips.

The course will undergo further revision and adaptation for worldwide application. Although the workshop was conceived by the CDD Program, PAHO/WHO recognizes that the course will provide a means of assisting professionals working in other areas of primary health care to develop more effective communications materials targeted to specific community and/or professional groups. The use of marketing techniques, carefully aimed at the community level, could help bring more effective primary health care interventions to those most in need of them. ■

For more information on the workshop, contact: CDD Program, PAHO/WHO, 525 23rd Street, N.W., Washington, D.C. 20037, USA. Copies of the selected readings used in the workshop are available in Spanish or English; the workshop report is available in English only.

Ann Jimerson is a freelance consultant, based in Washington, D.C., producing audiovisual materials and training health workers in applied communications.

Michael McQuestion is a Technical Officer for the CDD Program in PAHO's Washington office.

A Communicator's Checklist

1 ***Computers in Developing Nations,*** edited by John M. Bennett and Robert E. Kalman (The Netherlands, North-Holland Publishing Company, 1981), 272 pp.

This volume is a collection of papers presented at a one-day seminar on computers in developing nations held in Melbourne, Australia, on October 13, 1980. The first few papers in the collection illustrate a broad theoretical knowledge of what computers should be able to do, but very little practical knowledge of what they actually do. Although computers are presented as problem-solvers in themselves, practical experience usually dispels that notion quickly. Computers can't do anything humans can't do—they just work faster and don't get tired or frustrated.

Just as I was beginning to lose heart with the form and substance of this book, I came upon several papers well worth reading and attention. For instance, S.V. Deodhar, Manager of Computer Services at Ballapur Industries in New Delhi, India, cites guidelines for the introduction of large computer systems in developing nations. The advice he presents is of such value it should be applied universally. His realistic approach is summed up in the following: "It is important to recognize at this stage that application of computers is not an end in itself, but only a tool enabling us to perform better while attending to other jobs."

Another thoughtful piece contained in this book was written by C.F. Iau of the Malaysian Computer Society. Iau relates the findings of two computer surveys he conducted. His findings can save developing countries hours of frustration surrounding the selection and installation of systems once the decision to computerize has been made.

"The Prospective Impact of Computers in Papua New Guinea" gives readers a good perspective on how developing nations can cope with the problems and pressures of too much "good advice" from computer salesmen eager to corner the market in a particular country. N.G. Cook, the author of this paper cautions: "I am convinced that in developing countries with a shortage of resources, the luxury of selecting different computers for similar tasks, at least within government, is one we can ill afford."

Then, in "A New Keyboard for Chinese Information Processing," S.C. Loh gives a fascinating account of the engineering problems associated with creating a Chinese ideograph keyboard. This should be read by any person still fearful that computers will replace humans. The solutions demanded human problem-solving and creativity and illustrate clearly that only humans can create, while computers merely simulate.

I would be remiss if I did not comment that the $39.75 price tag for this cheaply produced hardcover book is difficult to comprehend. It is ironic that the editors of a volume extolling the virtues of great advances in "informatics" didn't apply even the most elementary use of informatics—word-processing—in its production. Papers are xeroxed "as is" (some are single-spaced, some are double-spaced and replete with typos, strikeovers, and illegible copy), reduced to a small type size, and then bound between hard covers. Granted the cover is attractive and the title page is newly typeset, but why couldn't the papers be typed in the same typeface? The poor production job does little to enhance the book's message. There is, however, much information and good advice contained between the covers of *Computers in Developing Nations.* ■

Available for US $39.75 from Elsevier North-Holland, Inc., 52 Vanderbilt Avenue, New York, N.Y. 10017, USA.

Reviewed by Arlene Horowitz, program assistant and in-house computer expert, Clearinghouse on Development Communication.

2 ***Against the Grain: The Dilemma of Project Food Aid,*** by Tony Jackson with Deborah Eade (OXFAM/England, Oxford, England, 1982), 132 pp.

Project food aid is 30 percent of the total food aid sent to developing countries, with a net dollar value of $785,700,000 in 1980. It comes mainly from the United States, the European Economic Community, Australia, Canada, and Japan. Used as an "incentive" to promote food-for-work projects or to encourage participation in maternal/child health or school feeding projects, it is presumed to be humanitarian development assistance.

As a general rule, program administrators think food aid is usually good, while field workers—those who actually handle it—think it is bad. Theory versus practice? Why the opposing views?

Tony Jackson, food aid consultant to OXFAM/England, has collected information on food programs since they began 25 years ago. In a short, crisp narrative (written with coworker Deborah Eade), Jackson presents a point-by-point argument that food aid, when used as a "development tool," is most likely a flop.

Jackson contends that food aid falls disappointingly short of the development goals for which it has been used. As stated: "Year after year, independent and commissioned evaluations have failed to find evidence of an improvement proportional to the vast amounts of food, money, and human effort which have been expended."

Jackson believes that food aid not only does little good, but that it actually works against development since it does not stimulate self-sufficiency. To the contrary, it acts to create a dependency. In addition, food aid competes with local crops and ties up handling and storage facilities. Often those people who most need food do not receive it. And those who have to administer the bulky shipments spend their time managing hand-outs rather than designing meaningful projects.

However, the real story of *Against the Grain* is between the lines and in the footnotes. That is where the reader will discover why the programs exist and why it will be so hard to change them.

The prevailing attitude in the developed world is that food aid is necessary. The rich nations should share with the poor. But the motives for continuing food aid programs are not quite so altruistic.

Private voluntary organizations who distribute most of the food aid are largely funded by the international development assistance agencies. They are not likely to say that their major work is ineffective. The international assistance agencies distribute their countries' excess production for use overseas. For one of the largest donors, the United States, there is even a minimum tonnage marked for project food aid, as mandated by Congress in the 1970s.

Food aid advocates justify the continuation of project food aid as a "short-term expedient." But this, according to Jackson, has been the justification for over 25 years, "long enough to turn rhetoric into reality, yet the tendency has been to institutionalize food aid-dependent projects."

Food aid has thus become, according to Jackson, the prime example of an available commodity determining aid policy. As *Against the Grain* states quite often, the "food aid tail wags the development dog," with development workers or recipients de-

vising projects just to distribute or receive more food.

Jackson recommends that project food aid be cut back drastically and the entire concept reappraised. In essence, Jackson says that the real problem in developing countries is poverty, not hunger, and that free hand-outs of food only aggravate a reality that needs creative analysis. *Against the Grain* raises difficult questions for those who would look for answers. ■

Available from OXFAM, 274 Banbury Road, Oxford, OX2 7DZ, United Kingdom, for £4.50. Trade inquiries to Third World Publications, 151 Stratford Road, Birmingham, B11 1RD, United Kingdom.

Reviewed by Judith Kelly, who writes on development and environmental issues, most recently for the U.S. Peace Corps.

3 ***Communications Technology in Education and Training—Proceedings of the Fourth National Conference on Communications Technology in Education and Training,*** published by Information Dynamics, Inc. (Silver Spring, MD, 1982), 186 pp.

After spending several enjoyable hours going through the pages of this collection of papers presented at the Fourth National Conference on Communications Technology in Education and Training, held in Boston, Massachusetts, in March 1982, I regret not being there in person. Reading the book is almost as good as being there, though. There's something for everyone here. Almost every page contains valuable insights and/or fascinating anecdotal accounts of just about every conceivable communications application to skills training. The conference was sponsored by Emerson College, the American Society for Training and Development, and GTE Laboratories in cooperation with eight education organizations, institutions, private groups, and professional associations.

The contributors were in almost every case practitioners—either industry trainers or educators—rather than academic theoreticians, a refreshing and welcome change for a primer in educational technology. The book's only serious drawback is that, although its subject is skills training, there is only one presentation representing labor's viewpoint, and it is the very last one in the book, giving the reader an impression that it was an afterthought. Labor unions have been very active in designing training programs that use the latest communication and educational technologies. It is disappointing not to see mention of their contributions to the field.

The selections in this book are well written, well researched, and offered in plain, easy-to-understand English—quite an accomplishment given the technical subject matter. The major headings include: Use of Teleconferencing for Training; Company Use of Communications Technology; Computer-Assisted/Computer-Based Training for Industry; Multi-Media Training Approaches; and College and University Use of Communications Technology to Serve Industry Training Needs. A quick rundown of the topics covered includes the use of teleconferencing (audio and video), computer-assisted training, multi-media approaches, satellite teleconferencing, videodisc instruction, television, etc.

In the paper presented by John S. Jeness, Director for Human Resources, Planning, and Development for Consolidated Edison in New York, the special pressures placed on educational technologists to provide adequate skills education are thoughtfully described. "I can't emphasize enough the need for all sides in this triangle—industrial trainers, academicians, and equipment and software developers—to continually talk *with*—not at each other, so that we all have a better understanding of each other's points of view, interests, and needs. We can call that 'better communication about technology in education and training.' "

When any new educational technology is developed, as educators in the developing world are all too painfully aware, the claims for its miraculous curative powers over whatever ails that particular country are legion. In view of this, LDC readers will be particularly pleased with what Rod L. Boyes says in his paper on video delivery to remote locations, although his point could apply to almost any technology. "Delivery of technologies sometimes clouds the issue. Teleconferencing has a great deal of sex appeal; however, some organizations buy into this process in cases where a 'one-way' communication is sufficient. Even a well-designed and written pamphlet can be extremely effective and efficient—more so than video or microcomputer-based systems, depending on the application."

I will end this review with the quote that opens this wonderful volume. It was written in 1913, at the time Thomas Edison invented the motion picture. "Books will soon be obsolete in the schools. Scholars will soon be instructed through the eye. It is possible to teach every branch of human knowledge with the motion picture. Our school system will be completely changed in ten years."

This kind of says it all, doesn't it? ■

Available for US$20.00 (hardbound) from Information Dynamics, Inc., 111 Claybrook Drive, Silver Spring, Maryland 20902, USA.

Reviewed by Arlene Horowitz, program assistant and in-house computer expert, Clearinghouse on Development Communication.

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In Brief... Publications to Note

- Readers of *DCR* will be pleased to note the appearance of the 1982 *Educational Media Yearbook,* edited by James W. Brown. As usual, the *Yearbook* provides a variety of valuable information: articles, lists, and more lists. There are seven "International Reports" on educational technology activities in Saudi Arabia, Indonesia, Singapore, and the U.K.; and on the professional health of educational technology in the United States: spending trends, employment trends, and media design for training, for example. Then come the lists: of organizations and associations in the U.S. and abroad; of doctoral and master's programs in instructional technology, library and information science, and mass communication; of funding sources; of media-related periodicals, both alphabetically and by subject; of reference tools such as books, films, filmstrips, microfiche, computer programs, etc. (Included here are books *listing* other media resources.) Following these entries is probably the most important list of all, addresses for the periodicals and resources. The *Educational Media Yearbook* is available from Libraries Unlimited, Inc., Dept. EMY, P.O. Box 263, Littleton, Colorado 80160, USA, for US$37.50.
- To pursue educational technology a bit further, our readers should be reminded of two Latin American journals on the subject: The *Revista de Tecnología Educativa,* (in Spanish), published in Chile by the Organization of American States, (Casilla 16162, Correo 9, Santiago, Chile), and *Tecnologia Educacional* (in Portuguese), published in Brazil by the Brazilian Association of Educational Technology (Av. Erasmo Braga, 255, Grupo 401-402, 20020 Rio de Janeiro, RJ, Brazil).
- Also published in Brazil is a new series of communication monographs, *Cadernos Intercom* (in Portuguese), published by the Brazilian Society of Interdisciplinary Studies in Communication (who also publish *Boletin Intercom).* The first four have covered popular journalism; television and the working classes; reform and revolution in Latin American communication; uses and abuses of new educational and communication technologies. The Society's address is Caixa Postal 20793, São Paulo, SP, Cep. 01000, Brazil.
- A very useful new "broadsheet," *The Cost of Distance Education,* comes to us from the International Extension College. Author Hilary Perraton has earlier given us studies of a number of distance education programs. Here he looks at the costs of print, correspondence courses, radio and

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South Pacific Islanders Use Satellites in Nutrition Communication

By Gloria A. Renda and Brian M. Riordan

Many people are surprised to learn that a Regional Nutrition Program to promote and protect breastfeeding and improve maternal and infant nutrition is using a satellite to communicate with nine participating countries. This pilot nutrition-by-satellite project is under way, of all places, in the South Pacific.

The Foundation for the People of the South Pacific (FSP), a nonprofit organization which began in 1965, conducts programs that assist human development in the Pacific Basin. In 1981, FSP, with the assistance of a grant from the Office of Nutrition, United States Agency for International Development (USAID/ON), began a South Pacific Regional Maternal and Infant Nutrition Program. The small program staff, which consisted of a regional nutritionist and a secretary in Suva, Fiji, faced a most challenging communications assignment. Their task was to provide ongoing personal contact and support to nurses, dieticians, medical officers, and health educators scattered throughout the nine participating nations (Cook Islands, Fiji, Kiribati, Papua New Guinea, Solomon Islands, Tonga, Tuvalu, Vanuatu, and Western Samoa). Telephone systems have improved over recent years, but to hold conference calls to nine countries over millions of miles of ocean would not only be a communications nightmare, but prohibitively expensive.

In 1966 NASA launched ATS-1 (Applications Technology Satellite No. 1) as an experimental satellite. Since 1972, the University of the South Pacific Network (USPNET), including their nine Country Extension Centers, and the PEACESAT Network (Pan-Pacific Educational and Communication Experiments by Satellite), have joined to include 18 participating stations which extend from Papua New Guinea to California, and from Saipan to as far south as New Zealand.

FSP had long been aware of the great potential the satellite and its ground terminals had as a modern communication tool for teaching and for the transfer of information, particularly with its ability to provide instant two-way communication and involve large numbers of people in on-the-spot dialogue.

Use of the satellite by countries in the South Pacific is available free, a service provided jointly by the PEACESAT Network and the University of the South Pacific Network (USPNET). (See *DCR* 35, "Technical Assistance Spans the Pacific.") Using a telephone hook-up (the cost of a long-distance phone call) to the Honolulu satellite station, resource persons in the United States are able to participate in round-table discussion sessions by satellite with the South Pacific nations.

The participating sites use a common (open) circuit on the ATS-1, with simplex (one-way) transmission. All the participants can listen to the conference since it is on an open line. Seminar sites are connected through inexpensive VHF earth stations at each of the PEACESAT or USP sites.

A Senior Health Personnel Seminar was held in Suva, Fiji (May 11-15, 1981), to inaugurate the FSP Regional Nutrition Program. This was the first seminar in the South Pacific concerned with promoting and protecting breastfeeding and improving maternal and infant nutrition practices. The decline in breastfeeding and the problems associated with artificial feeding practices are the primary factors contributing to malnutrition of infants in the South Pacific. The final session of the seminar featured a two-hour round-table satellite session in which the participating resource persons reported on the seminar results to health professionals in the nine countries. Those unable to attend in person were given the opportunity to question experts such as Derrick and Patrice Jelliffe (of the University of California at Los Angeles and authors of *Human Milk in the Modern World),* Richard Manoff (president, Manoff International), and Bluebell Standal (professor, University of Hawaii) as well as to hear and question their country representative at the seminar. This marked the first use of the satellite by FSP, and clearly showed the powerful implications of this medium for communications.

A joint resolution passed by the seminar participants strongly urged that the governments of all Pacific nations give their fullest possible support to the promotion and protection of breastfeeding practices, and that they adopt the WHO/UNICEF International Marketing Code on Breastmilk Substitutes.

Plans were immediately developed for the South Pacific Regional Maternal and Infant Nutrition Program to hold quarterly round-table sessions, with specific subjects for discussion, and to have technical experts available to respond to questions from program participants throughout the region. Some examples of the content of these planned sessions are:

- follow-up on status of country action plans developed at the seminar to promote and protect breastfeeding;
- discussion of problems of supplementary feeding in the Pacific—need for development of appropriate multi-mix;
- report of activities undertaken by participants on return from the Public Health

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Breaking the Cycle

by Jacques Dupont

In 1980, only 43 percent of the 2.3 billion people living in developing countries had reasonable access to safe drinking water. Only 25 percent had any kind of sanitary facility.

The 1976 Habitat Conference in Vancouver promoted the idea of clean water for all by 1990, an idea that ultimately gained the official endorsement of the United Nations as the International Drinking Water Supply and Sanitation Decade 1981-1990.

Two of the greatest obstacles to achieving the goal are the lack of trained and experienced personnel, and the continued use of inappropriate, expensive technologies where practical, low-cost alternatives could be applied.

The water supply side of the decade—the pumps, taps, and pipelines—has received much attention. Sanitation and waste disposal have not. Yet experience has taught that, without accompanying improvements in sanitation and disposal practices, simply providing clean water will not break the cycle of disease that annually kills as many as six million children under five years of age.

Few concrete attempts have been made to reach water supply planners, extension workers, and the people themselves with the message that contaminated water supplies and poor sanitation practices transmit disease.

To make this essential connection and to promote some simple methods and practical technologies, the Communications Division of IDRC (Canada's International Development Research Centre) is producing a short documentary film for health care decision-makers, technicians, and community workers charged with implementing water and sanitation programs.

Using animated sequences to demonstrate the cycle of disease, and live-action scenes, the film will attempt to show the cause-and-effect relationship between poor sanitation practices and gastroenteritic disease.

The documentary frankly but discreetly addresses a problem that has usually been avoided on film because of barriers raised in people's minds against a "sensitive" or "distasteful" subject. But there is no elegant way to die of diarrhea.

Written and produced by the Communications Division and the Health Sciences Division of IDRC, in collaboration with the World Health Organization (WHO) and Oxfam (U.K.)—international agencies active in water supply and sanitation programs—the film will be available through development agencies and Canadian missions in developing countries in mid-1983. ■

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(**Satellites** continued from page 10)

Nutrition Training Course (January 12–February 12, 1982) conducted by the FSP Regional Nutritionist.

These round-tables are usually organized using the Suva, Fiji, station as a control with a chairperson acting as moderator. There can be many participants from each country, but with only two hours typically available, efforts are made to have a spokesperson from each country. However, the number of observers is only limited by the size of the ground station studio and the interest generated by the subject matter.

It is not unusual for a session to have up to 20 participants and twice as many observers, with professional backgrounds ranging from village health workers to directors of health for island nations.

The impact of the satellite for nutrition training and education has yet to be fully measured; however, as a direct result of this program, individuals in Tonga were motivated to form a Food and Nutrition Action Group which is now receiving official recognition for its work. FSP plans to continue the use of this innovative approach to nutrition issues and, in addition to the quarterly round-tables, may hold monthly follow-up sessions to the Nutrition Media Message Workshop (Nov. 2–12, 1982) coordinated by the FSP Regional Nutritionist.

The first two years of the FSP Regional Nutrition Program have created an awareness of maternal and infant nutrition problems. A recent evaluation of the FSP Regional Nutrition Program made it clear that the program had met its original objectives and that additional activities could capitalize on the enthusiasm generated to tackle nutrition problems in the South Pacific. FSP is planning to continue funding for the program for an additional three years. ■

Gloria A. Renda has been the Regional Nutritionist for the FSP Regional Nutrition Program since it began in 1981 and is based in Suva, Fiji.

Brian M. Riordan was formerly the FSP Nutrition Program's Administrator in New York, and is currently based in Hawaii.

For more information, contact Gloria Renda, FSP Nutrition Program, P.O. Box 1493, Suva, Fiji; or, FSP, Suite 808, 200 West 57th Street, New York, NY 10019, USA.

(**In Brief** continued from page 15)

of planning and integrating nonformal programs into existing systems. A chapter is devoted to the "origins and meanings" of nonformal education; another to "approaches to planning nonformal education;" and while the bibliography is limited, there is a helpful list of nonformal education-related institutions.

The IIEP held two workshops related to educational media, and published a report from each. One, by Tony Bates, carries the workshop title: *The Planning and Management of Audio-Visual Media in Distance Learning Institutions,* and is based on a survey of 12 distance learning systems. It covers the kinds of media used, the educational uses of these media, their production, distribution, cost, evaluation, etc. Six appendices provide additional information on workshop participants, institutions using audiovisual media, media use data, and criteria and issues relating to use.

IIEP research report number 31, *The Use of Modern Media for Rural Education in Developing Countries: The Organizational Problems* by M. Gutel, covers television and radio, film, slide projectors, audiocassettes, videocassettes, videotape, and the organizational support systems they need for effective educational applications. The author regrets the lack of cost-benefit analyses, but a look at the bibliography shows no sources more recent than 1975. By now the literature is more extensive in this area. The address of the IIEP to order any of these five publications is International Institute for Educational Planning, 7-9 rue Eugène-Delacroix, 75016 Paris, France.

- The Educational Research Institute of British Columbia has published a very nice review of new technologies applied to distance education. Although the orientation is toward Canada's British Columbia, many of the issues and opportunities can be found in other contexts. A general discussion of learning at a distance opens the report, which then considers currently used media such as print materials, radio, audiocassettes, television and its related applications, slow scan, videotape, teleconferencing. The four most promising of the new technologies from the Institute's viewpoint have been given chapters to themselves. These are satellites, videodiscs, videotex, and microcomputers. Each of these is examined through projects in which they are already in use. Any reader with an interest in these developments will be well served by *Learning at a Distance and the New Technology.* Available for US $10.00 from the Educational Research Institute of British Columbia, 400-515 West 10th Avenue, Vancouver, British Columbia, Canada V5Z 4A8.
- Unesco's series, Population Communication: Technical Documentation, has a new issue. Number 8, *Folk Media and Mass Media in Population Communication,* treats the current use of the folk media and their potential to support population programs. The report presents case studies from the Philippines, Mexico, Indonesia, and Papua New Guinea, gives results of a Unesco-sponsored study in Haiti, and covers a Unesco meeting on integrating folk and mass media. Planners are encouraged to use this report in conjunction with one of the Unesco training films, "Family Planning Communication: Folk Media." For information regarding this publication and the accompanying film, contact the Population Division, Unesco, 7 place de Fontenoy, 75007 Paris, France.
- Those readers who are concerned with the developments in space will want to take note of a recent Worldwatch Paper, *Space: The High Frontier in Perspective* (Number 50). Some of the discussion centers around the competitive U.S.-Soviet space programs; scientific data gathering from space is reviewed, as is the "satellite communications revolution." The paper takes note of Bela Mody's never-too-often repeated warning that "the biggest constraint on reaping the educational advantages of direct broadcast satellites is not the hardware—the satellites, the transmitters and the receivers—but the software, such as programming geared to villages, teachers capable of integrating the images into meaningful lessons . . ." This Worldwatch Paper No. 50 can be ordered for US $2.00 (postage additional) from the Worldwatch Institute, 1776 Massachusetts Avenue, N.W. Washington, D.C. 20036, USA.
- Popular culture and development communication are closely allied in many parts of the world. Mini-radio soap operas carrying a nutrition message in the Philippines, puppets speaking in support of family planning in India, *fotonovelas* presenting a health message in Ecuador, and folk theater advancing development in Botswana have been well documented in these pages. Nowhere does popular culture flourish more vigorously than in Latin America, so it is not surprising to see that the academic community is looking seriously at this social indicator. This community has a new forum in *Studies in Latin American Popular Culture*—a journal whose intent is to rectify the "neglect of Third World popular culture." The journal defines the field as "some aspect of culture which is accepted by or consumed by significant numbers of people." The premier issue features articles, among many others, on Mexican *fotonovelas,* post-revolutionary participation in sports in Nicaragua and Cuba, Panamanian bus art, the Brazilian *telenovelas,* and Argentine postal stamps as myth-makers.

  This almost 300-page publication will give a new perspective on many kinds of cultural communication heretofore overlooked or ignored. For information regarding the availability of *Studies in Latin American Popular Culture,* contact Charles M. Tatum, Department of Foreign Languages, Box 3L, New Mexico State University, Las Cruces, New Mexico 88003, USA. ■

Reviewed by Judy Brace, Resource Center Manager and Acting Director of the Clearinghouse on Development Communication.

On File at ERIC

Recent entries in the ERIC (Educational Resources Information Center) files reviewed in this column are concerned with educational radio, the evaluation of media-based education programs, and the role of information in national development. All are available from the ERIC Document Reproduction Service (EDRS), P.O. Box 190, Arlington, Virginia 22210, USA.

- Hall, Budd L. ***Mtu ni Afya ("Man Is Health"): Tanzania's Health Campaign.*** 1978. 79pp. (ED 216 682)

This account of the Tanzanian health campaign, which was conducted in 1973, opens with a brief explanation of how radio forums fit into the mass media scheme. Campaigns in other countries are then reviewed, with emphasis on aspects pertinent to the Tanzanian experience. The Tanzanian campaign, entitled Mtu ni Afya (Man Is Health), had three aims: (1) to increase people's awareness of how they can make their lives healthier and to encourage both groups and individuals to take appropriate action; (2) to provide clear and simple information about the symptoms of specific diseases and their prevention; and (3) to encourage those who had participated in the national literacy campaign to maintain their skills by reading campaign materials designed especially for the newly literate. This report also describes more recent development projects in Tanzania, and 38 references are listed. Available from EDRS in microfiche for 97¢ or in paper copy for $7.40.

- Imhoof, Maurice. ***Reading by Radio. A Position Paper on the Use of Radio in Teaching Reading Skills for Educational Development.*** 1981, 32pp. (ED 217 379)

To support the position that radio has significant instructional potential for the improvement of language arts skills—especially reading—in developing nations, this paper discusses the use of radio in relation to other aspects of educational development in those countries. The discussion of the role of language in educational development in the first section of the paper includes literacy, vernacular languages, international languages, language policy, and language and economic expectations. The second section reviews the use of radio in educational development, including the advantages of radio, radio in education, radio and language instruction, and radio and unqualified language teachers. Current theoretical descriptions of the reading process and their congruence with the use of radio are summarized in the third section, including psycholinguistics and reading, reading in a second language, language and language arts instruction, and radio and reading. The concluding section suggests ways in which radio's potential can be realized in a language arts reading program. Available from EDRS in microfiche for 97¢ or in paper copy for $3.90.

- Kaungamno, E. E. ***Use of International Documentation: Some of the Major Problems Facing Developing Countries. Occasional Paper No. 14.*** 1980, 13pp. (ED 220 082)

This discussion of the role of information in national development addresses such issues as for whom and for what purposes information is needed in developing countries, the impact of the information explosion on the Third World, and the problems inherent in current national and international information infrastructures. A series of statements formulated at the COSTED—Unesco Expert Meeting (held in Bangalore, India, in 1978) on the kind of information needed by developing countries is presented. As an example of information that is useful for development but expensive to access, a list of online

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The "Dirty Power" Problem

by Gary Garriott

A significant obstacle to the introduction of microelectronics technology in developing countries is unreliable and/or unstable electrical power, known as "dirty power." Delicate electronic circuitry is easily damaged if operating voltages exceed design limits, even for extremely short periods of time (fractions of a second). If the power is suddenly interrupted, any data held in the computer's RAM (random access memory) is lost. The table below describes various electrical problems and typical corrective/protective devices available in the marketplace:

PROBLEM	SOLUTION
Voltage spikes (very fast) and surges (at least a few cycles in length) are short increases in voltage caused by lightning strikes, power equipment switching/cycling; transient voltages in general (temporary increases or decreases in line voltage).	Line filters and transient suppressors.
Noise caused by power line conditions, switching equipment, fluorescent lights, etc. (Noise frequencies may be similar to frequencies used by digital circuits and cause data errors.)	Most filters, suppressors, and line isolators.
Varying line voltage not associated with transient conditions, but with difficulties in demand regulation at the utility end, including deliberate voltage reduction to decrease load ("brownouts").	Line isolators (usually includes voltage regulation circuitry as well as transient suppression and filtering); "brownout" and overvoltage protection.
Total power blackout; loss of data stored in RAM.	Back-up power supplies that switch in a charged batter—short delay; some connect battery to circuitry at all times to avoid power interruption altogether; may include voltage regulation and transient/noise suppression.
Lightning or static build-up on antenna and transmission lines (as distinct from electrical power lines).	Impulse suppressors.
Determination of what electrical problems exist (power failures, high-low line voltage, spikes, noise, etc.).	Power line monitors that provide visual and/or audible alarms when an abnormal condition exists; some models include machine tape-sized printers noting the type of problem and time/date it occurred.

Most devices cost from a few hundred to several thousand dollars, although simple line filters are available for less than a hundred US dollars. Readers can obtain more information relating to a specific problem by writing: Inquiry Service, Volunteers in Technical Assistance, 1815 N. Lynn Street, Arlington, Virginia 22209, USA.

databases in the field of agriculture is provided, along with their associated usage fees. Weaknesses in the information infrastructures of developing countries described by a 1975 FAO conference on agricultural research are reviewed, and the recommendations made at that conference for the strengthening of national and international information infrastructures are summarized. An 8-item reference list and a checklist on information infrastructures accompany the text. Available from EDRS in microfiche for 97¢ or in paper copy for $2.15.

- ***Low-Cost Aids for Elementary Science Teaching in Asia and the Pacific.*** 1982, 169pp. (ED 219 279)

This report, based on the outcomes of four regional workshops which were held within the framework of the Asian Programme of Educational Innovation for Development (APEID) to strengthen national efforts in the development of elementary science aids/materials, provides (1) guidelines for the development of appropriate and low-cost aids for science instruction; (2) an inventory of the aids developed by workshop participants; (3) a synthesis of experiences leading to the development of the aids, focusing on teacher education/development, use and availability of aids, curriculum, school level organization, instructional strategies, and financial support; and (4) recommendations. The major emphasis is on the low-cost aids, which are grouped under the headings Basic Tools, Living Things, Matter, Energy, and Earth and Sky. (The division of science into these content areas is common in elementary science programs in Asian and Pacific countries.) A brief description is given for each item. In addition, content, skills, and attitude objectives are listed when appropriate, materials for construction are listed, instructions for making the device are given, and suggestions for uses and modifications are provided. Among the aids described are a spirit burner for supplying heat, a microbalance, single-pan/spring balances, laboratory stands, a water clock, a thermometer, a box of biological tools, a plant press, a stethoscope, a breathing system, a potometer, electricity kits, weather apparatus, and electric motors. Available from EDRS in microfiche for 97¢ or in paper copy for $12.65.

- Mayo, John K. and Hornik, Robert C. ***Evaluation and Research in the Planning, Development and Support of Media-Based Education. Final Report of the IIEP Workshop (Florida State University, Tallahassee, Florida, October 27-30, 1980.)*** 1981, 70pp. (ED 212 120)

This workshop focused on methods of evaluating and monitoring media-based education programs as a means of improving the use of television or radio to communicate a useful message to students, the general populace, or a particular group. Originally prepared as the basic discussion paper for the workshop, this document reviews the role of evaluation and research in the various stages of the policy-making and implementation process, and stresses the need to relate evaluation to system planning as a whole, rather than confining it to summative research or to formative evaluations as instructional materials are being developed. This paper has been revised to incorporate the major themes of the workshop discussions and includes the participants' criticisms and recommendations. Available from EDRS in microfiche only for 97¢ plus postage, or from IIEP Publications in paper copy. ■

Barbara B. Miror, Publications Coordinator, ERIC Clearinghouse on Information Resources, School of Education, Syracuse University, Syracuse, New York 13210 USA.

Nonformal Ed Study-Conference Set for June

Michigan State University has announced its Fifth Annual Institute for Studies in Nonformal Education.

The Nonformal Education Study-Conference will be held in East Lansing, Michigan, from June 6-24, 1983.

For more information, contact Dr. Ted Ward, 518 Erickson Hall, MSU, East Lansing, MI 48824, USA.

(**Cassirer** continued from page 2)

lage, with the villagers as active bystanders making sure that the producers will never forget the quality of the listeners. This also offers the producer the possibility of discussing editing with the participants. The completed programs are monitored and discussed in the village before the mobile production team leaves." (Quotes are from a Sri Lanka Broadcasting Corporation document to be published shortly.) An international meeting is planned at Mahaweli to familiarize other countries with the approach and the experience gained.

Another example comes from Kenya where a local radio station is planned for Homa Bay on Lake Victoria. After a preliminary survey and local construction of the station, operation is envisaged for 1984 with similar goals of participatory communication with the rural population.

DCR: What has been Unesco's position on regional news agencies?

HC: Unesco has favored establishment of national or regional news agencies or feature services. News agencies are usually seen primarily in the context of the international flow of communication. But it should not be forgotten that agencies have also an important function in reporting news from inside the country so development may become a topic for national awareness and discussion. More specifically development-oriented is the Latin American agency on special information (ALASEI) which receives support from the International Program for the Development of Communication (IPDC) (See *DCR* 38). It will begin operation in 1983. Another project is the Asian News Network (ANN) whose task will be to exchange news on the development role of the media.

Reinforcement of the trend toward Unesco's involvement in development communication may come from the IPDC. Its Council has adopted criteria governing approval and financing of projects which specify that projects be relevant to development, especially as reflected in regional, subregional, and national development policies and plans, and that they increase the communications capacity to receive and transmit information of concern to individuals and groups at both the rural and urban community levels.

While Unesco is actively involved in development communication, it is interesting to note that resources for this purpose are drawn to a considerable extent from funds-in-trust provided by the Federal Republic of Germany, Scandinavia, and countries primarily interested in concrete contributions to development. Unesco's public image and many of its operational activities are, however, dominated by the wish to rectify the international imbalance in communication and to introduce modern communications technology. The limited budget for development communication and the lack of public attention to Unesco's efforts to improve the uses of media within countries are probably due, in part, to the poor news value of constructive initiatives. As any journalist knows, good news is no news. Hence the major importance of lending prestige and encouragement to Unesco's development activities.

The most important task, as I see it, is to strengthen allegiance to development communication at the governmental level. To this end, delegations of Member States, especially that of the United States, should be sensitized to the issue. Pressure should be brought on Unesco to devote itself increasingly (as expressed in programs, staffing, and budgets) to, as I called it more than thirty years ago, communication of the people, by the people, for the people.

DCR: Thank you very much, Dr. Cassirer. ■

Using Audiocassettes in Distance Education

by Jo Bradley

Audiocassette recorders first came on the market in rich western countries in the early 1960s. They were cheaper and more portable than reel-to-reel machines, and much easier to use. They have since become even cheaper and lighter and cassette tapes are now familiar to people all over the world.

Distance teachers are making increasing use of audiocassettes, especially in countries where cassette recorders can be found in most households. Cassettes have the advantage of being easy to record and copy, and simple to use. They are strong enough to send by post without special packing, and cheap to mail because they weigh so little.

Audiocassettes lend themselves to many different uses with correspondence students. Here are just some of them:

1. They can provide material which needs to be heard, rather than read or looked at, such as music, drama, historical speeches. They are especially useful in foreign language teaching.
2. They can be used to guide the student through complex visual materials, such as mathematical diagrams. Instead of switching from printed text to diagram and back again, the student can study the diagram at the same time he or she is listening to the instructions.
3. Hearing the voices of tutors and course writers draws the student closer to the teaching institution and personalizes his or her links with it. Listening to group discussions is more involving than reading about different viewpoints on a topic.
4. Students can record as well as listen, which encourages two-way communication, especially with students who find writing difficult.

Some of these functions have traditionally been performed by radio programs. In institutions where audiocassettes are taking over to some extent from radio, the reasons are usually to be found among the following:

1. Using cassettes frees the institution from dependence on a broadcasting organization or radio station. This is particularly helpful when there is only a limited amount of transmission time available, or where the institution is under pressure to reduce the number of hours it broadcasts. The alternative is often for students to have to listen at inconvenient times of day.
2. It can be cheaper to use cassettes than radio for courses with small enrollments if students have audiocassette machines in their homes.
3. Students can use cassettes more flexibly than radio programs, listening to them when they reach the right point in the course rather than when they happen to be broadcast. Cassettes can easily be stopped, started, and replayed as often as necessary, and can be used for revision at the end of the course.
4. Audiocassettes are an informal medium; it is easy to learn how to record as well as how to play back, and people are becoming accustomed to the technology. Using them can help to break down the isolation of the correspondence student. ■

Reprinted with permission from About Distance Education, *Issue No. 15, August 1982. For more information write to the International Extension College, 18 Brooklands Avenue, Cambridge CB2 2HN, United Kingdom.*

New Communications and Development Unit Announced

"The Institute for International Development and Co-operation at the University of Ottawa has established a 'Communications and Development' unit. Its aim is to organize a unified and comprehensive research effort on communications in the development of nations. The research will be interdisciplinary in nature, involving practitioners and researchers from Canada and other developed and developing countries and will result in a full-fledged capability at the Institute in Ottawa and associated institutions abroad, in training communications experts for work in developing nations.

"Recent advances in communication technology have placed the world on the threshold of a 'Communications Revolution' that could have far-reaching consequences for society. If the world is to make optimum use of the developmental capabilities of communications, then more and better knowledge of the role of communications in specific domains of development is required. The unit being set up will fulfill just such a requirement. Topics to be explored include: policy-making and analysis in communications; organization of the communications sector; the collection and organization of data on communications; financing of communications projects; technology and communications; telecommunication; communications and productivity; energy-saving role of communications; and the role of communications managers and consultants.

"For further information write to: Dr. Jacob R. Joseph, Chief, Communications and Development, Institute for International Development and Co-operation, 50 College Lane, Ottawa (Ontario), K1N 6N5, Canada. Telephone 613-231-2240."

Guide to Teaching Health Care Workers

Teachers of health workers may have a thorough knowledge of their subject and extensive field experience, but few of them have had exposure to modern teaching methods. They find it difficult to pass on their knowledge to their students, according to a World Health Organization (WHO) manual.

Teaching for Better Learning is a 137-page guide for primary health care teachers and trainers that explains how to:

- decide exactly what the students should learn;
- choose and use suitable teaching methods;
- test what the students have learned; and
- prepare teaching materials.

Choosing course content. Selecting task-oriented topics and concentrating on the relevant facts, skills, and attitudes that students will need in their work is emphasized.

In order to decide how much detail should be included and what standards of performance are required in designing course curriculum, teachers and trainers should assess community health needs. The manual discusses some practical short cuts for carrying out a community analysis to discover the prevalent common diseases and the educational, social, economic, cultural, and agricultural factors that affect health.

Another important tool is task analysis—an exact breakdown of the knowledge, skills, and attitudes needed to carry out each step of a task. Examples of task analysis are given for weighing babies in a clinic and a 17-step task for persuading an unwilling mother, in a remote area, to take her child for immunizations.

Teaching methods. The author emphasizes that learning by doing rather than just listening is the best approach. There are detailed discussions on the use of feedback and role-playing, the importance of motivation, clarity, and active learning.

A 17-page chapter details different methods of student learning assessment. They include oral exams, essays, short answer questions, multiple choice questions, project reports, record books, and checklists.

Preparing teaching materials. The final part of the manual is aimed at helping teachers to plan, write, produce, adapt, and evaluate materials, ranging from single-page handouts for use in lessons to complete manuals for health workers.

Tips are given for writing simply; for giving the information in the right order; and for deciding on objectives. The book is no longer available from AID *Resources Report,* but may be ordered from the African Medical and Research Foundation (AMREF), Book Distribution Unit, Wilson Airport, P.O. Box 30125, Nairobi, Kenya, for US $6.50. ■

Reprinted with permission from AID Resources Report, *July/August 1982, No. 22.*

(**In Brief** continued from page 9)

television. This information should be of great help to education planners and ministry economists who need to know such things as the relative costs of the various methods of distance teaching in order to build a budget, whether they will have to spend more than for traditional teaching methods, or whether new courses can be afforded if they use distance teaching methods. At the same time an early chapter warns that there are no simple answers, that costs, as other things in this world, are relative (and subject to inflation!). There is a nice bibliographic reference section that will guide the researcher who looks for lengthier treatments of the subject of educational costs. IEC Broadsheet on Distance Learning No. 17, *The Cost of Distance Education,* is available from the IEC, 18 Brooklands Avenue, Cambridge, CB2 2HN, United Kingdom, for £4.00 surface mail, £4.90 air mail.

- The Latin American Association of Radiophonic Education (ALER) is publishing several series which will be of interest to our Spanish-reading audience. For those primarily interested in case studies, their *Serie Experiencias* is valuable. The series has, to date, three monographs on radio programming for education (health education, rural development, and teaching). A second series, *Serie Investigaciones,* includes two research monographs. A third series treats the institutional aspects of ALER. The Association also publishes a bimonthly journal, *Informa,* and has brought out a special issue, a ten-year overview of ALER. For prices and a publication list, write to the Secretaria Ejecutiva, ALER, Casilla 4639-A, Quito, Ecuador.
- Unesco's International Institute for Educational Planning (IIEP) has been regularly publishing material of particular value to *DCR's* audience. In their series, Fundamentals of Education Planning, two monographs should be noted. Number 29, *Communication Media in Education for Low-income Countries: Implications for Planning* is by Emile McAnany and John Mayo, and covers aspects of media applications that should be considered by planners. The four case studies will all be known to our readers as will the critical issues facing the educational planner. Nonetheless, to have it all synthesized in compact and readable fashion, with a good bibliography, makes it useful indeed.

  Number 30 in this series is *The Planning of Nonformal Education* by David Evans. Now that nonformal education is beginning to take its rightful place in educational systems, it is important to have such a monograph as this to support the process

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Cornell Offers Communication Planning Courses

Two courses related to communication and rural development will be offered in 1983 by Cornell University to observe World Communication Year. "Communication Planning and Strategy" and "Reaching Rural Women" are designed especially for program planning and management-level officials in developing countries.

"Communication Planning and Strategy" will be held July 11-29, 1983, on the Cornell University campus in Ithaca, New York (USA). Using case studies, participants' own experiences, and other materials, the course will cover such topics as: how to develop appropriate strategies for communicating with various publics; how to mobilize communication resources, from manpower to technology; how to coordinate mass communication with interpersonal communication methods; and how to provide communication support for field workers.

Applications are invited from public and private sector officials who have planning, administrative, or training responsibility for programs in agriculture, health, nutrition, family planning, rural development, and non-formal education. Priority will be given to persons in developing nations whose positions allow them to make practical use of the course experience or who can extend the benefits of the course to others.

Tuition and fees for the three-week course are US$900. Housing, meals, and personal expenses are not included. For information contact Dr. R.D. Colle or Christine Hollis, Department of Communication Arts, 640 Stewart Avenue, Ithaca, N.Y. 14850, USA. Telephone: 607-256-6500. ■

(**Satellites** continued from page 16)

or her own motivation and desire to understand another language.

c) The combination of visuals, motion, and audio is a strong factor in attracting and keeping the attention of the students.

d) Every television program is a living teaching tool, not only for the students, but also for the faculty.

Many foreign language instructors in the United States are U.S. born and educated. During their training as foreign language teachers, their exposure to a foreign culture is limited, in the majority of cases, to the country where the target language originated. For instance, most teachers of Spanish are exposed during their training to the language and cultures of either Spain or Mexico, and the instructor's teaching reflects his or her previous experience and background. It is rare to find a teacher whose experience has been acquired in any of the South American countries.

The exposure of faculty to current foreign language television programs produced in countries other than the dominant one is an eye-opener. The instructor soon learns that there are subtle and sometimes strong differences in language and culture among countries with the same mother tongue. The continued viewing of these foreign language programs via satellite updates the knowledge of the instructor which hopefully leads to better instruction.

Plans for Receiving Television Programs in Other Languages

With the current equipment owned by UMBC it is only possible to receive programming from those satellites located between 83 degrees West and 143 degrees West. Satellites located beyond 83 degrees West, such as the French and German language Symphonie and the Russian language Statsioner and Ghorizont, are not currently within our reach due to the differences in video standards, frequencies, the configuration of the feed, the limitations of the receiver, and the size of the parabolic dish.

To overcome these limitations, a new satellite receiver system, with future capabilities for transmitting as well as receiving, is being designed by the technical staff of the Department of Instructional Media Resources at UMBC and will soon be installed.

Afterthought

In preparing this material, I have addressed our use of satellite technology and some of our technical problems. We are doing this work in the spirit of experimentation. I have not addressed the political and ethical implications of operating a private satellite receiver. As a word of caution to other prospective experimenters, it is wise to be aware of the licensing position of the country concerned. Some countries have a virtual "open-skies" policy—the signals that come from any satellite are the property of the receiver unless the originator prevents the reception by special law or by signal scrambling.

In other countries the reception of private communications *without permission* is illegal. Special permission may be granted for experimental, developmental, or demonstration work, as it was in our case. ■

For further information contact Victor H. Aulestia, Director, Department of Instructional Media Resources, University of Maryland-Baltimore County, Baltimore, MD 21228, USA.

Victor H. Aulestia is the Director of the Department of Instructional Media Resources at UMBC and a consultant in media utilization. Prior to this position he was an Instructor of Spanish and the Director of the Language Center at UMBC. He is the current President of the International Association for Learning Laboratories.

Foreign Television by Satellite Enhances Language Studies in U.S.A.

by Victor H. Aulestia

A satellite receiving station was a recent addition to the language training program at the University of Maryland-Baltimore County Campus in the United States.

Project Background

Prior to 1977, the Modern Language Program at the University of Maryland-Baltimore County (UMBC) was a traditional program. The curriculum in the individual languages was oriented, as are most U.S. foreign language programs, toward the study of literature. Aided by two major grants from the National Endowment for the Humanities, the department has entirely reshaped its curriculum to establish a better balance between language, literature, and culture. Above all, the language department created a coherent new communication-oriented curriculum.

This new program was designed to provide students with the practical language skills and cultural awareness needed for other fields of study; for jobs in business, government, social and health services, and other positions that involve international contacts. The program's goal was to enable the students to actually use their knowledge of the target language and culture not just in the classroom, but in "real life" situations, and to arrive at a better understanding of those societies where the language they are learning is spoken.

In order to make the language experience as dynamic as possible, extensive use of media by both students and faculty is a feature of the new program. Hundreds of audio, film, and video materials are readily available in the Language Media Center for independent use by faculty and students alike. A state-of-the-art language laboratory and high quality courseware provide the students with the opportunity to practice what they learn in the classroom.

Perhaps the most interesting and potentially valuable piece of equipment on the campus for learning foreign languages and cultures is the satellite receiver. In 1979, UMBC's instructional technologist was impressed by encouraging reports from both the AID Rural Satellite Program and the Application Technology Satellite Program on their successful use of satellite technology to support the delivery of basic social services and classroom instruction to isolated areas in a number of developing countries. He studied the feasibility of applying the same technology used in Indian villages in 1975 to receive satellite transmissions from the ATS-6, to capture for American classrooms foreign television programs transmitted by international and domestic satellites.

The technical recommendations of the study were for the purchase of a 3.5 meter parabolic dish, a 110 K Low Noise Amplifier, and a professional agile video receiver. Because of the lack of experience at the time with such equipment and international video standards, the equipment purchased was limited to receiving television programs from domestic (U.S.) satellites.

The new equipment is able to receive foreign language television programming which is limited to four Spanish channels and three French channels from domestic and Canadian satellites. In addition to these television channels, the Language Media Center receives audio-only programming in such languages as Polish, Russian, Chinese, etc.

An Effective Tool

UMBC's new language studies now include, on a scheduled basis, French and Spanish commercial and non-commercial television programs relayed from the above-mentioned satellites. These are transmitted to the Language Center and to television receivers in all classrooms from the head-end (TV distribution center) of the UMBC Television Complex.

These foreign language television programs may be viewed at any time during the day by faculty and students on any of the classroom TV monitors. They may be used during classes to enhance the lesson or as a warm-up device, or as entertainment after classes. The variety of content, language usage, cultural characteristics, non-verbal language, idiomatic expressions, socio-cultural codes, etc., contained in these programs constitutes an excellent means of developing listening comprehension proficiency and awareness of cultural similarities and differences.

From the informal observations and reactions of the students to this new educational resource, some tentative assumptions have been reached. Notice that these observations are only hypotheses and are not hard scientific facts.

a) The level of comprehension of the target language increases proportionately to the amount of viewing of television programs in that foreign language.

b) The acquisition of a higher level of comprehension is partly due to the fact that the student is not under any obligation to watch the program. The operating factor here is his

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Development Communication Report

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